

Applications with Inequalities

At most \leq At least \geq Between $85 < x < 90$

2. The lengths of the legs of an isosceles triangle are integers. The base is half as long as each leg. What are the possible lengths of the legs if the perimeter is between 6 units and 16 units?



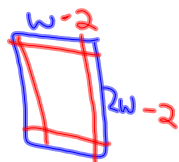
$$6 < 2\frac{1}{2}x < 16$$

$$2.4 < x < 6.4$$

3, 4, 5, or 6 units

9. The length of a rectangular sheet of paper was twice its width. After 1 cm was trimmed from each edge of the sheet, the perimeter was at most 1 m. Find the largest possible dimensions of the trimmed sheet.

$$2(w-2) + 2(2w-2) \leq 100$$



$$w \leq 18$$

$$16 \text{ cm} \times 34 \text{ cm}$$